UNITED STATES PATENT AND TRADEMARK OFFICE

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10/806,333	03/23/2004	Akira Ueda	042258	1837

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EXAMINER
MARTELLO, EDWARD

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 August 2008</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-26</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>28 September 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to the amendment and remarks received August

14, 2008.

2.   The amendment of the specification cures the objections to the drawings and is

entered into the record and as such, the objections to the drawings a hereby withdrawn.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claim 25 is rejected under 35 U.S.C. 101 as the claimed invention is directed to

non-statutory subject matter. The claim recites "computer-readable recording medium"

which comprises "printed matter or the like" as defined in the specification in paragraph

[0167], page 51, line 7. The specification provides definitions for the computer-readable

recording medium, which is used for claim interpretation. That definition includes

printed matter or the like and printed matter or the like are non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under

35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

4.   Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaguchi et al. (U. S. Patent 5,946,479, hereafter '479) and in view of Nishiura (U. S. 2002/0052720 A1, hereafter '720).

5.   Regarding claim 1, Sakaguchi teaches a mesh dividing device for performing a mesh dividing process of an analytical target model provided as three-dimensional CAD data into cuboids (hexahedrons) for numerical-analysis, comprising: a mesh dividing unit ('479; fig. 3, mesh generation unit) for performing a mesh dividing process ('479; fig. 25) so as to divide said analytical target model, based on a parameter kit (user input file; '479; initial condition/boundary condition storage unit, col. 8, ln. 45-46 & ln. 51-55) with parameters for division-control for dividing said analytical target model into said cuboids and said three-dimensional CAD data, into cuboids (hexahedrons) of less than or equal to the maximum number of cuboids (hexahedrons) included in said selected parameter kit (user input file; '479; initial condition/boundary condition storage unit, col. 8, ln. 45-46 & ln. 51-55) ('479; fig. 25, S611); but does not teach a library for previously storing two or more kinds of parameter kits, each including a maximum number of cuboids (hexahedrons) which defines the upper limit of the number of said cuboids (hexahedrons) or a selecting unit for selecting at least one of said two or more kinds of parameter kits stored in said library. Nishiura, working in the same field of endeavor, however, teaches a library (analysis information file unit; '720; fig. 2, ¶ 0100) for previously storing two or more kinds of parameter kits (analysis information files) ('720; "Open an existing file"

… "data base of previous analyses;" ¶ 0077) and a selecting unit for selecting at least one

of said two or more kinds of parameter kits (analysis information files) stored in said

library ('720; "Open an existing file" … "data base of previous analyses;" ¶ 0077) for the

benefit of allowing the user to easily reuse previously input data for additional test runs

that are normally performed during a typical product design process. It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the

teachings of Sakaguchi and Nishiura to provide multiple, user selectable input parameter

files, each including a maximum number of cuboids (hexahedrons) which defines the

upper limit of the number of said cuboids (hexahedrons) for the benefit limiting the

simulation run time and to allow easy reruns of a numerical analysis of a 3D model using

a mesh dividing device.

6.   In regard to claim 2, Nishiura further teaches a device further comprising a

display unit ('720; fig. 1 & 2; ¶ 0042) capable of displaying various kinds of information

including the contents of said two or more kinds of parameter kits (analysis information

files) ('720; "Open an existing file" … "data base of previous analyses;" ¶ 0077) stored

in said library, said display unit displaying the contents ('720; ¶0048) of said selected

parameter kit (analysis information file) ('720; fig. 3; "Open an existing file" … "data

base of previous analyses;" ¶ 0077).

7.   Regarding claim 3, Nishiura further teaches a device further a comprising

parameter kit (analysis information file) designating unit (analysis information file unit;

'720; fig. 1 & 2) by which the operator designates one of said two or more kinds of

parameter kits (analysis information files) ('720; "Open an existing file" … "data base of

previous analyses;" ¶ 0077) stored in said library while referring to a display provided by

said display unit ('720; fig. 3; "Open an existing file" ... "data base of previous

analyses;" ¶ 0077), wherein said selecting unit selects a parameter kit (analysis

information file) designated by said parameter kit (analysis information file) designating

unit to be said selected parameter kit (analysis information file) ('720; fig. 3; "Open an

existing file" ... "data base of previous analyses;" ¶ 0077).

8.   In regard to claim 4, Nishiura further teaches a device further comprising a

modification unit (analysis information file unit; '720; fig. 1 & 2) by which said operator

modifies the contents of a parameter kit (analysis information file) designated by said

parameter kit (analysis information file) designating unit while referring to a display

provided by said display unit ('720; fig. 3; "Open an existing file" ... "data base of

previous analyses;" ¶ 0077), wherein said selecting unit selects a parameter kit (analysis

information file) modified by said modification unit to be said selected parameter kit

(analysis information file).

9.   Regarding claim 5, Nishiura further teaches a device further comprising a saving

control unit (analysis information file unit; '720; fig. 1 & 2; ¶0043 - for accumulating

analysis information on an analysis object which is entered on the respective input

screens by the input unit) for storing the contents of a parameter kit (analysis information

file) modified by said modification unit into said library according to an instruction

externally given by said operator ('720; fig. 1 & 2; ¶ 0043).

10.   In regard to claim 6, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 2 and Sakaguchi further teaches a device further comprising a

reference component designating unit by which the operator designates a reference

component from the components of said analytical target model while referring to a

display provided by said display unit ('479; fig. 19, col. 21, ln. 60-67, col. 22, ln. 1-5),
wherein said mesh dividing unit handles said reference component designated by said
reference component designating unit, and a component smaller than said reference
component, as exception to target for said mesh dividing process ('479; fig. 19, col. 21,
ln. 60-67, col. 22, ln. 1-23).

11.   Regarding claim 7, Sakaguchi and Nishiura teach the mesh dividing device
according to claim 3 and Sakaguchi further teaches a device further comprising a
reference component designating unit by which the operator designates a reference
component from the components of said analytical target model while referring to a
display provided by said display unit ('479; fig. 19, col. 21, ln. 60-67, col. 22, ln. 1-5),
wherein said mesh dividing unit handles said reference component designated by said
reference component designating unit, and a component smaller than said reference
component, as exception to target for said mesh dividing process ('479; fig. 19, col. 21,
ln. 60-67, col. 22, ln. 1-23).

12.   In regard to claim 8, Sakaguchi and Nishiura teach the mesh dividing device
according to claim 4 and Sakaguchi further teaches a device further comprising a
reference component designating unit by which the operator designates a reference
component from the components of said analytical target model while referring to a
display provided by said display unit ('479; fig. 19, col. 21, ln. 60-67, col. 22, ln. 1-5),
wherein said mesh dividing unit handles said reference component designated by said
reference component designating unit, and a component smaller than said reference
component, as exception to target for said mesh dividing process ('479; fig. 19, col. 21,
ln. 60-67, col. 22, ln. 1-23).

13.   Regarding claim 9, Sakaguchi and Nishiura teach the mesh dividing device according to claim 5 and Sakaguchi further teaches a device further comprising a reference component designating unit by which the operator designates a reference component from the components of said analytical target model while referring to a display provided by said display unit ('479; fig. 19, col. 21, ln. 60-67, col. 22, ln. 1-5), wherein said mesh dividing unit handles said reference component designated by said reference component designating unit, and a component smaller than said reference component, as exception to target for said mesh dividing process ('479; fig. 19, col. 21, ln. 60-67, col. 22, ln. 1-23).

14.   In regard to claim 10, Sakaguchi and Nishiura teach the mesh dividing device according to claim 6 and Sakaguchi further teaches a mesh dividing device where in said mesh dividing unit handles a component of which at least one of the maximum outer dimensions in the three axial directions is less than or equal to the corresponding one of the maximum outer dimensions in the three axial directions of said reference component, as exception to target for said mesh dividing process ('479; col. 28, ln. 30-47).

15.   Regarding claim 11, Sakaguchi and Nishiura teach the mesh dividing device according to claim 7 and Sakaguchi further teaches a mesh dividing device wherein said mesh dividing unit handles a component of which at least one of the maximum outer dimensions in the three axial directions is less than or equal to the corresponding one of the maximum outer dimensions in the three axial directions of said reference component, as exception to target for said mesh dividing process ('479; col. 28, ln. 30-47).

16.   In regard to claim 12, Sakaguchi and Nishiura teach the mesh dividing device according to claim 8 and Sakaguchi further teaches a mesh dividing device wherein said

mesh dividing unit handles a component of which at least one of the maximum outer dimensions in the three axial directions is less than or equal to the corresponding one of the maximum outer dimensions in the three axial directions of said reference component, as exception to target for said mesh dividing process ('479; col. 28, ln. 30-47).

17.   Regarding claim 13, Sakaguchi and Nishiura teach the mesh dividing device according to claim 9 and Sakaguchi further teaches a mesh dividing device wherein said mesh dividing unit handles a component of which at least one of the maximum outer dimensions in the three axial directions is less than or equal to the corresponding one of the maximum outer dimensions in the three axial directions of said reference component, as exception to target for said mesh dividing process ('479; col. 28, ln. 30-47).

18.   In regard to claim 14, Sakaguchi and Nishiura teach the mesh dividing device according to claim 2 and Nishiura further teaches a mesh dividing device wherein said selecting unit automatically selects said selected parameter kit (analysis information file) based on said three-dimensional CAD data ('720; ¶ 0105).

19.   Regarding claim 15, Nishiura further teaches a mesh dividing device wherein said selecting unit computes, based on said three-dimensional CAD data, shape-feature information and physical-property-feature information about said analytical target model or components of said analytical target model, and selects a parameter kit (analysis information file) corresponding to the computed shape-feature information and physical-property-feature information, to be said selected parameter kit (analysis information file) ('720; ¶ 0014 - 0106).

20.   In regard to claim 16, Nishiura and Sakaguchui further teach a mesh dividing device wherein said library previously classifies and stores said two or more kinds of

parameter kits (analysis information files) ('720; "Open an existing file" … "data base of

previous analyses;" ¶ 0077) each being brought into correspondence with levels of shape-

feature information and physical-property-feature information which are assumed for said

analytical, target model; and said selecting unit selects a parameter kit (analysis

information file) corresponding to levels to which the computed shape-feature

information and physical-property-feature information belong, to be said selected

parameter kit (analysis information file) ('479; col. 17, ln. 46-67, col. 18, ln. 1-11).

21.   Regarding claim 17, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 15 and Sakaguchi further teaches wherein said shape-feature

information includes information about the scale (comparison of size) of said analytical

target model and implementation forms (materials, physical constants etc.) of

components in said analytical target model ('479; col. 31, ln. 32-54).

22.   In regard to claim 18, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 16 and Sakaguchi further teaches wherein said shape-feature

information includes information about the scale of said analytical target model and

implementation forms of components in said analytical target model ('479; col. 31, ln.

32-54).

23.   Regarding claim 19, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 17 and Sakaguchi further teaches wherein said implementation form

is information about volume distribution in said analytical target model ('479; col. 31, ln.

32-54).

24.   In regard to claim 20, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 18 and Sakaguchi further teaches wherein said implementation form is

information about volume distribution in said analytical target model ('479; col. 31, ln.

32-54).

25.   Regarding claim 21, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 15 and Sakaguchi, further teaches a mesh dividing device wherein

said physical-property-feature information is information about thermal conductivity

distribution in said analytical target model ('479; col. 29, ln. 57 – 67, col. 30, ln. 1 – 15).

26.   In regard to claim 22, Sakaguchi and Nishiura teach the mesh dividing device

according to claim 2 but do not teach the device further comprising a conversion time

estimating unit for estimating, based on said selected parameter kit (analysis information

file), a conversion time required for said mesh dividing unit to perform a mesh dividing

process for said analytical target model, wherein said display unit displays said

conversion time estimated by said conversion time estimating unit. Sakaguchi, however,

teaches a device implementing a method to estimate the size of the mesh to generated

("479; col. 3, ln. 44-47). It would have been obvious to one of ordinary skill in the art at

the time of the invention to use the size estimation methods of Sakaguchi to provide a

time estimating means for the benefit of allowing the user to adjust the mesh division size

and/or other parameters so that the analysis is completed in the user's desired timeframe.

27.   Regarding claim 23, Sakaguchi and Nishiura do not teach the method of claim 22

wherein said conversion time estimating unit measures a time required for a simplified

mesh dividing process for said analytical target model, the simplified mesh dividing

process being performed on the basis of said selected parameter kit (analysis information

file), and estimates said conversion time to be a value obtained by multiplying the

measured time by a predetermined coefficient. Sakaguchi, however, teaches a device

implementing a method to estimate the size of the mesh to generated ("479; col. 3, ln. 44-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the size estimation methods of Sakaguchi, as applied to a simplified mesh of the analytical target model, to provide a time estimating means and apply a predetermined coefficient to scale the result for the benefit of allowing the user to quickly adjust the mesh division size and/or other parameters so that the analysis is completed in the user's desired timeframe.

28.   In regard to claim 24, Sakaguchi and Nishiura teach he mesh dividing device according to claim 1, and Sakaguchi further teaches said parameters for division-control include the number of the mesh-division in the three axial directions ('479; col. 29, ln. 38-56) but does not teach including tolerances in the three axial directions, and a volume conversion rate. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the parameter driven methods of Sakaguchi, as applied to mesh-division control in three axis, by adding parameters of tolerance and volume rate to provide mesh-division functionality expressed in these dependent quantities for the benefit of allowing the user to quickly adjust the mesh division size and/or other parameters so that the analysis is completed to the user's desired metrics.

29.   Regarding claim 25, Sakaaguchi teaches a computer-readable recording medium in which a mesh dividing program for instructing a computer to function as a mesh dividing device for performing a mesh dividing process to divide an analytical target model provided as three-dimensional CAD data into cuboids (hexahedrons) for numerical-analysis ('479; fig. 25, S611, and parameters for division-control for dividing said analytical target model into said cuboids (hexahedrons), but does not teach wherein

said mesh dividing program includes a library for previously storing two or more kinds of

parameter kits (analysis information files) each including a maximum number of cuboids

(hexahedrons) which defines the upper limit of the number of said cuboids (hexahedrons)

and parameters for division-control for dividing said analytical target model into said

cuboids (hexahedrons), and instructs said computer to function as a selecting unit for

selecting at least one of said two or more kinds of parameter kits (analysis information

files) stored in said library, and a mesh dividing unit for performing a mesh dividing

process so as to divide said analytical target model, based on a parameter kit (analysis

information file) selected by said selecting unit and said three-dimensional CAD data,

into cuboids (hexahedrons) of less than or equal to the maximum number of cuboids

(hexahedrons) included in said selected parameter kit (analysis information file).

Nishiura, working in the same field of endeavor, however, teaches a computer-readable

recording medium contain computer executable methods to perform the steps of

previously storing multiple kinds of parameter kits (analysis information files) as a

library (analysis information file unit; '720; fig. 2, ¶ 0100) ('720; "Open an existing file"

… "data base of previous analyses;" ¶ 0077) and a selecting unit for selecting at least one

of said two or more kinds of parameter kits (analysis information files) stored in said

library ('720; "Open an existing file" … "data base of previous analyses;" ¶ 0077) for the

benefit of allowing the user to easily reuse previously input data for additional test runs

that are normally performed during a typical product design process. It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the

teachings of Sakaguchi and Nishiura to provide multiple, user selectable input parameter

files, each including a maximum number of cuboids (hexahedrons) which defines the

upper limit of the number of said cuboids (hexahedrons) for the benefit limiting the

simulation run time and to allow easy reruns of a numerical analysis of a 3D model using

a mesh dividing device.

30.   In regard to claim 26, Sakaguchi teaches a method for setting, when performing a

mesh dividing process to divide an analytical target model provided as three-dimensional

CAD data into said cuboids (hexahedrons), a maximum number of cuboids (hexahedrons)

which defines the upper limit of the number of cuboids (hexahedrons) for numerical-

analysis ('479; fig. 25, S611, and parameters for division-control for dividing said

analytical target model into said cuboids (hexahedrons), but does not teach it comprising

the steps of: previously storing two or more kinds of parameter kits (analysis information

files), as a library, each including said maximum number of cuboids (hexahedrons) and

said parameters for division-control; selecting at least one of said two or more kinds of

parameter kits (analysis information files) stored in said library, when performing a mesh

dividing process for said analytical target model; and setting a maximum number of

cuboids (hexahedrons) and a parameter for division-control included in the selected

parameter kit (analysis information file), on a unit for performing said mesh dividing

process. Nishiura, working in the same field of endeavor, however, teaches the steps of

previously storing multiple kinds of parameter kits (analysis information files) as a

library (analysis information file unit; '720; fig. 2, ¶ 0100) ('720; "Open an existing file"

… "data base of previous analyses;" ¶ 0077) and a selecting unit for selecting at least one

of said two or more kinds of parameter kits (analysis information files) stored in said

library ('720; "Open an existing file" … "data base of previous analyses;" ¶ 0077) for the

benefit of allowing the user to easily reuse previously input data for additional test runs

that are normally performed during a typical product design process. It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the

teachings of Sakaguchi and Nishiura to provide multiple, user selectable input parameter

files, each including a maximum number of cuboids (hexahedrons) which defines the

upper limit of the number of said cuboids (hexahedrons) for the benefit limiting the

simulation run time and to allow easy reruns of a numerical analysis of a 3D model using

a mesh dividing device.

Response to Arguments

31.   Applicants' arguments, filed 8/14/2008, have been fully considered with respect

to claims 1-26 but are not persuasive.

32.   Claim 25 was and still is rejected under 35 U.S.C. 101 as the claimed invention is

directed to non-statutory subject matter. The claim recites "computer-readable recording

medium" to which the Applicant states, "computer-readable recording medium" are a

very common practice in this technical art." While this is true, a problem arises due to

the specification of the instant application, which provides definitions for the computer-

readable recording medium, paragraph [0167], page 51, line 7. That definition includes

printed matter or the like and printed matter or the like are non-statutory subject matter.

33.   It is respectfully submitted that the cited art describes the elements of claim 1 of

the present application as shown above with the equivalence of terms in the applied art to

the language of the instant application. The Initial condition/boundary condition storage

unit of the applied art includes structure for storing many initial condition values,

material property parameters and parameters for setting a maximum resolution or

minimum element length along the major axis of the model which is equivalent to setting

the maximum number of cuboids for the model.   While the designer of a 3D modeling

program might think in terms of limiting the number of cuboids for controlling

processing time, the user or CAD designer would be more inclined to think in the terms

of resolution along the dimensions of the model as an indication of processing time and

that estimating or choosing the maximum number of cuboids for a design might be

somewhat difficult to grasp, especially for an odd shaped object.   Given that the rejection

of claim 1 is an obviousness rejection, the Examiner believes that one of ordinary skill in

the art at the time of the invention would interrupt that setting a limit of the maximum

number of divisions along the major axis as equivalent to limiting the process to a

maximum number of cuboids.

34.   Regarding claim 26 and the process of setting (initializing, inputting, providing,

etc.) the values into the Initial condition/boundary condition storage unit of the applied

art is the same setting process as described in this claim and as stated for claim 1, the

Initial condition/boundary condition storage unit of the applied art includes structure for

storing many initial condition values, material property parameters and parameters for

setting a maximum resolution or minimum element length along the three major axis of

the model which is equivalent to setting the maximum number of cuboids for the model.

While the designer of a 3D modeling program might think in terms of limiting the

number of cuboids for controlling processing time, the user or CAD designer would be

more inclined to think in the terms of resolution along the dimensions of the model as an

indication of processing time and that estimating the maximum number of cuboids for a

design might be somewhat difficult to grasp, especially for an odd shaped object.   Given

that the rejection of claim 1 is an obviousness rejection, the Examiner believes that one of

ordinary skill in the art at the time of the invention would interrupt that setting a limit of

the maximum number of divisions along the three major axis as equivalent to setting a

limit to a maximum number of cuboids.

35.   The Examiner respectfully finds the Applicants' arguments not persuasive and

continues the rejection of claims 1-26 as presented above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Edward Martello whose telephone number is (571) 270-

1883. The examiner can normally be reached on M-F 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/EM/

Examiner, Art Unit 2628

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628